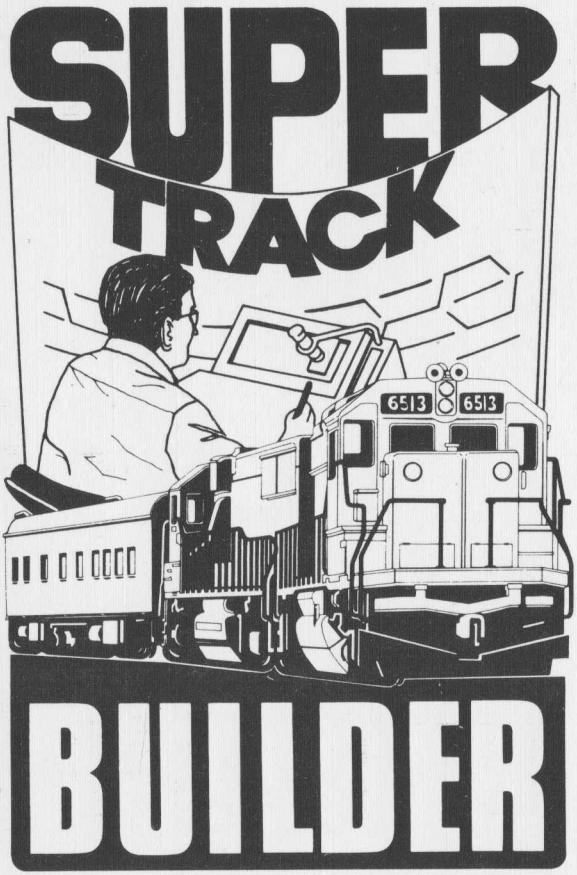
SUPER TRACK BUILDER


SUPER
TRACK
6513
6513
BUILDER

SUPER TRACK BUILDER

INTRODUCTION

Super Track Builder and Super Dispatcher

Super Track Builder is used with the SIGNAL Computer Consultants simulation program SUPER DISPATCHER. Super Track Builder allows you to design and build custom track layouts (territories). Your custom territories may be substituted for the "standard territories" furnished on the SUPER DISPATCHER program disk.

Super Track Builder is used solely to build new territories. To USE a territory you have designed you must also have the SUPER DISPATCHER simulation program.

SUPER TRACK BUILDER FEATURES

The three standard territories furnished with SUPER DISPATCHER consist of 24 interlockings, with yards at each end and two spurs entering territories from "dark territory." The territories include sections of single, double and triple track. Block mileages (distance between interlockings) vary between 2 and 21 miles. Up to eight trains are operating on the territory at the start of each simulation.

Super Track Builder allows you to design, build and save additional territories for use with SUPER DISPATCHER. Territories you build may:

- Consist of 10 to 24 interlockings
- Combine the sixteen interlocking types (see Figure 3) in any "legal configuration
- Include up to 4 spurs entering the layout from dark territory
- Use any combination of track mileage (1 to 99 miles) between interlockings
- Be assigned custom station names
- Assign eight train start locations anywhere in the territory.

Any territory configuration you can construct with Super Track Builder will run with the SUPER DISPATCHER simulation program.

GETTING STARTED

The following discussion takes you through the steps to construct a territory file.

Follow the directions on the colored insert in the center of this manual to load and run the Super Track Builder program. The insert also contains a listing of the key assignments for your computer.

The first screen displayed following loading of the main program is the PRINTER SELECTION screen. You may, depending on the type of printer you have, be able to obtain a printed copy of your file development screens. Enter a number corresponding to the type of printer you have to set up the interface.

Step 1. FILE SELECTION

The next screen (Figure 1) asks if you wish to modify an existing territory. You may modify one of the three territories furnished on the SUPER DISPATCHER program disk (Terr1, Terr2 or Terr3), or a file you have built and stored previously. If your response is YES (type "Y") a second screen is displayed, and you are asked to enter the name of the file to be modified. Be sure the disk containing the territory to be modified is in the drive before pressing return. If the territory file is found the territory is displayed. Note that the original file is not destroyed.

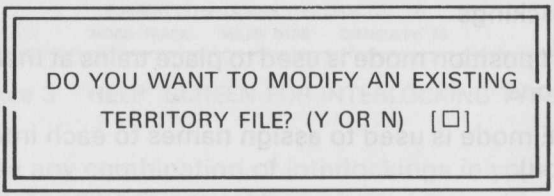


Figure 1. FILE SELECTION SCREEN

If you do not wish to modify an existing territory, type "N" and a default territory loaded with the Super Track Builder program is displayed (Figure 2).

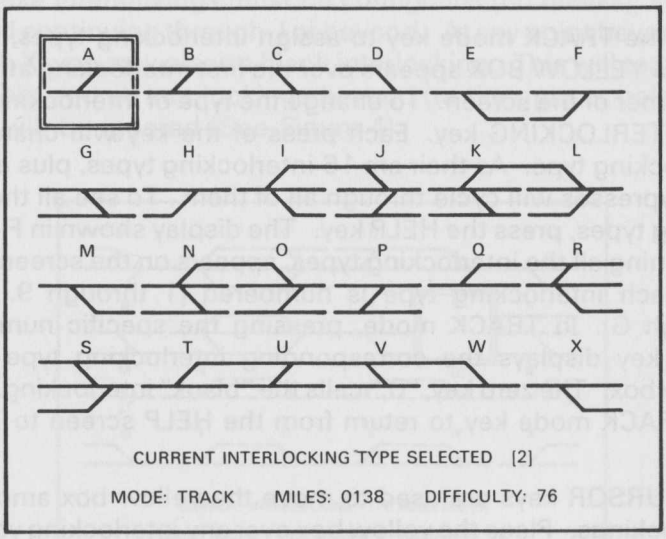


Figure 2. TRACK BUILDER "DEFAULT" TERRITORY

Step 2. TERRITORY PARAMETER DEFINITION

If you are modifying an existing territory, it is displayed. Or, if a new territory is being created, the "default" territory is displayed. The "default" territory consists of 24 interlockings.

Four OPERATING MODES are used to construct a territory:

- TRACK mode is used to assign one of the sixteen interlocking types to each station
- MILEAGE mode is used to assign track mileage between interlockings
- TRAIN position mode is used to place trains at their starting locations
- NAME mode is used to assign names to each interlocking (station).

Initially, Super Track Builder comes up in TRACK mode. Operating mode may be changed at any time by pressing another mode selection key. Key assignments for your computer are listed in the colored center section of this manual. A Keyboard Template is also provided with this manual.

2.1 TRACK MODE

Press the TRACK mode key to assign interlocking types. In this mode a YELLOW BOX appears over the first interlocking at the top left corner of the screen. To change the type of interlocking press the INTERLOCKING key. Each press of the key will change the interlocking type. As their are 16 interlocking types, plus a blank, 17 keypresses will cycle through all of them. To see all the interlocking types, press the HELP key. The display shown in Figure 3, containing all the interlocking types, appears on the screen. Note that each interlocking type is numbered (1 through 9, and A through G). In TRACK mode, pressing the specific numeric or alpha key displays the corresponding interlocking type in the yellow box. The zero key, "0," calls the "blank" interlocking. Press the TRACK mode key to return from the HELP screen to TRACK mode.

The CURSOR keys are used to move the yellow box among the interlockings. Place the yellow box over any interlocking you wish to change and then press either the INTERLOCKING key or an alpha/numeric key to change the interlocking inside the box.

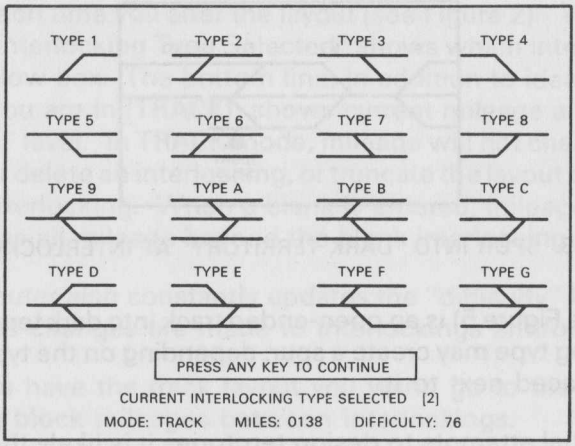


Figure 3: "HELP" SCREEN FOR INTERLOCKING TYPES

You may use any combination of interlockings in your layout – as long as two conditions are met:

1. The territory must have at least 10 interlockings (A through J);
2. The territory may have NO MORE than 2 left spurs and 2 right spurs in the layout (fewer than 2 each are permitted).

A territory must have between 10 and the full 24 interlockings. And these interlockings must be contiguous (no blanks), starting at A and continuing through J or beyond. At any point beyond J (K through X) you may place a blank interlocking. This will terminate the layout and all interlockings beyond (to the right or below the blank) will be ignored (See Figure 4).

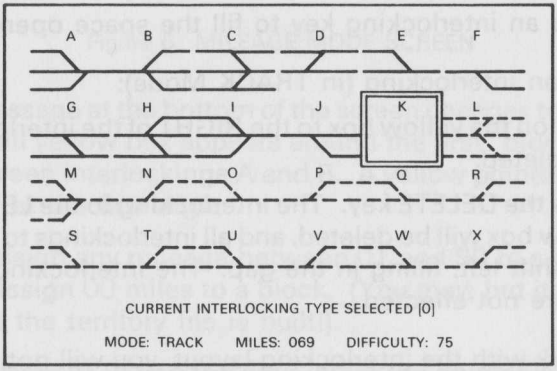


Figure 4. "BLANK" INTERLOCKING AT "K" TERMINATES LAYOUT

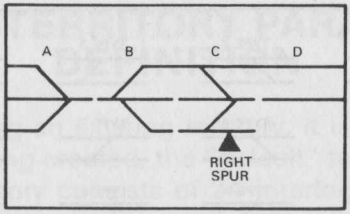


Figure 5. SPUR INTO "DARK TERRITORY" AT INTERLOCKING "C"

A spur (see Figure 5) is an open-ended track into dark territory. Any interlocking type may create a spur, depending on the type of interlocking placed next to it.

During initial attempts to design territories it is likely that you will violate the above conditions. This is not fatal as the "errors" will be caught during the edit phase and you will have to correct them before the territory file is built.

Inserting and Deleting Interlockings

You may move whole blocks of interlockings by using the INSERT and DELETE keys.

To insert an interlocking (in TRACK Mode):

1. Position the yellow box over the interlocking at the location you wish to make the insertion.
2. Press the INSERT key. The interlocking in the box and all which follow will move one position to the RIGHT (the interlocking at X moves off the screen and is lost. A space (blank interlocking) shows in the box.
3. Press an interlocking key to fill the space opened up.

To delete an interlocking (in TRACK Mode):

1. Position the yellow box to the RIGHT of the interlocking to be deleted.
2. Press the DELETE key. The interlocking to the LEFT of the yellow box will be deleted, and all interlockings to the right will shift left, filling in the gap. The interlockings to the left are not affected.

As you work with the interlocking layout, you will notice that the numbers in the two message lines at the bottom of the screen

change each time you alter the layout (see Figure 2). The top line "Current Interlocking Type Selected" shows which interlocking is in the yellow box. The bottom line, in addition to identifying the "mode" you are in (TRACK), shows current mileage and territory "difficulty" level. In TRACK mode, mileage will not change unless you add or delete an interlocking, or truncate the layout by entering a blank interlocking. When a blank is entered, mileage shown is reduced, as all mileage beyond the blank interlocking is ignored.

The computer also constantly updates the "difficulty" level of the territory as changes are made to interlockings and/or mileage.

When you have the track layout you want, go to the next step, assigning block mileages between interlockings.

2.2 MILEAGE MODE

Press the MILEAGE Mode key to assign mileage between interlockings (Figure 6). As you enter MILEAGE mode, a two-digit mileage figure appears between each pair of interlockings, and the

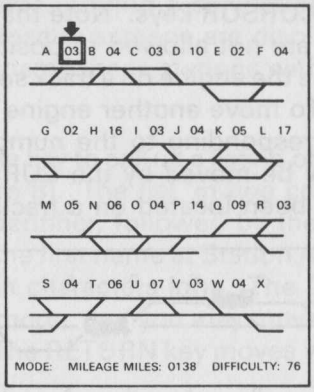


Figure 6. MILEAGE MODE SCREEN

"mode" message at the bottom of the screen changes to MILEAGE. Also, a small yellow box appears around the first "block mileage" figure between interlockings A and B. A yellow pointer above the box points at the first digit.

You may assign any mileage between 01 and 99 to a block. You may NOT assign 00 miles to a block. (You may, but it won't pass the edit as the territory file is built!).

Press a number (0-9) and the digit under the pointer in the yellow box changes and the pointer moves over the next digit in the box.

Press another number and that digit changes and the pointer moves back. Use the cursor keys to move the box over another mileage figure.

Each time you change a number, the total "miles" figure at the bottom of the screen is updated, as is the difficulty level. If you have a blank interlocking in the layout, you may change the mileage figures at and following the blank but these are ignored by the computer. When you are satisfied with the mileage figures go on to TRAIN position mode.

2.3 TRAIN INITIAL POSITION MODE

Eight trains (four westbound and four eastbound) will be on your territory at the beginning of a simulation run. You must pre-position these trains on track segments before the territory file is built.

Press the TRAIN Mode key to call up the train positioning screen (Figure 7). Eight engines, each prominently numbered, appear at various locations on the screen. Seven engines are colored red, the other one is green. The green engine (it will be number 1) may be moved with the CURSOR keys. Note that it will not stop over another train – you are not allowed to position two trains at the same location. Place the engine on a track segment in the territory you have defined. To move another engine press a numeric key (1-8). The train corresponding to the number pressed will turn green and may now be moved by the CURSOR keys. Continue until all trains have been located on a track segment.

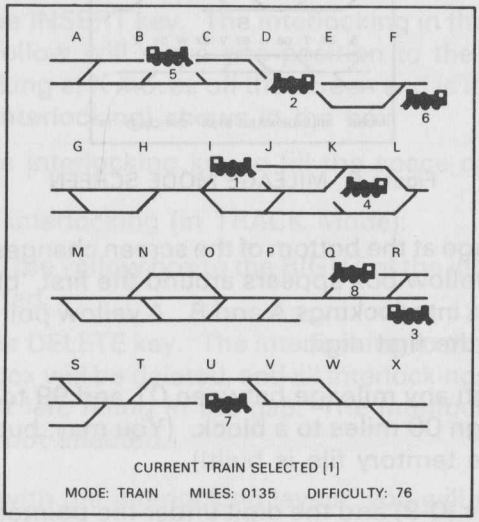


Figure 7. TRAIN POSITION MODE SCREEN

Two rules must be followed in placing trains:

1. Every train must be located on a track segment; and
2. All trains must be within the territory you have defined.

If you have shortened the territory by inserting a "blank" interlocking, all trains must be on a track segment to the left or above the blank. If, after placing trains, you make any changes to the track configuration be sure to check that trains are still on a track segment and within the territory you have defined.

As you place trains, the message line at the bottom of the screen will indicate which train is being positioned, e.g., "Current Train Selected [1]" will show when train #1 is green.

When all trains have been positioned go on to NAME Mode to select interlocking names.

2.4 NAME INTERLOCKINGS MODE

The station at each interlocking is identified both by a letter (A through X) and a name. During a simulation run you see these names only when Closeup screens are displayed. For territories you build you may rename these stations with names of your own choosing.

Press the NAME Mode key to call up a listing of current interlocking/station names (Figure 8). The list, in two columns, contains the interlocking alpha identifier, followed by the current name. The cursor is located on the first name at Station A. You may enter any alpha name up to ten characters long. The DELETE and INSERT keys operate in this mode, and you may move about the list using the CURSOR keys. The RETURN key moves you to the next name.

STATION NAME INPUT

CODE	NAME	CODE	NAME
A	[ADAMS]	M	[MILLSTONE]
B	[BECKER]	N	[NICKERSON]
C	[COOPER]	O	[OAKS]
D	[DRUM]	P	[PETERS]
E	[EDWARD]	Q	[QUEEN]
F	[FRENCH]	R	[REESE]
G	[GRACE]	S	[SULA]
H	[HUMPHREYS]	T	[TOOHEY]
I	[IRVINE]	U	[UNION]
J	[JOHNSON]	V	[VALLEY]
K	[KOCH]	W	[WILLIAMS]
L	[LAHR]	X	[XENON]

MODE: NAME MILES: 0135 DIFFICULTY: 76

Figure 8. NAME MODE SCREEN

When you are satisfied with the list of names you should be ready to build the territory file! Go on to BUILD FILE Mode.

Step 3. BUILD TERRITORY FILE MODE

At this point, you will have completed the territory track layout, assigned block mileages, positioned trains, and assigned station names. Now, the computer will take over and build a territory file that can be used by the SUPER DISPATCHER simulation program.

File building takes place in three stages:

1. The computer "checks," in order, your layout for any violations of track, mileage or train positioning requirements.
2. Then, the territory file is constructed and temporarily stored in memory.
3. You are prompted for a File Name, and the territory is stored to disk.

Press the BUILD FILE key to enter edit mode. A "last chance" screen is displayed to give you a final opportunity to review your work before editing begins. If you choose, you may continue into edit mode.

If, during editing, an error is detected, an appropriate error message is displayed (Figure 9 lists these messages) and you are returned to the mode (TRACK, MILEAGE or TRAIN) in which the error was found. Correct the problem and re-enter BUILD FILE mode. This process repeats until all errors are corrected.

```
MUST HAVE AT LEAST 10 INTERLOCKINGS
ONLY TWO LEFT SPURS ALLOWED
ONLY TWO RIGHT SPURS ALLOWED
ZERO MILES NOT ALLOWED
TRAIN MUST BE ON TRACK
```

Figure 9. EDIT MODE ERROR MESSAGES

When the computer goes all the way through the edit process without finding a problem it builds the territory file and displays a "Save File" screen. You are prompted for a NEW territory file name – don't use a name already on the disk. Press RETURN and

the file is saved to disk. A territory file requires only 3 blocks of disk space.

********** NOTE **********

A TERRITORY File is NOT a "SAVED SIMULATION." Do not attempt to load it into SUPER DISPATCHER at the beginning, when the SELECT SIMULATION screen is displayed. Territory files are loaded from the SETUP Screen under the "X" option (See Figure 3-1 in the SUPER DISPATCHER Manual).

****

CORRECTING ERRORS

During editing the computer first checks for interlocking "errors," then illegal block mileages, and finally misplaced trains. Station names are not subjected to editing – blank names are O.K.

When an error is detected, editing stops (more errors may be present) and you are returned to the mode in which the error exists. As a further aid, the yellow box is placed at the error location (TRACK or MILEAGE mode), or if a TRAIN error, the offending train is displayed in yellow. The blinking error message will indicate the specific problem encountered.

Track Layout Errors

Two checks are performed on the track layout:

1. The territory must have at least ten interlockings (A through J); and
2. No more than two left-hand and/or two right-hand spurs may be included.

The first problem is corrected by extending the territory to or beyond interlocking J. The second problem is handled by changing interlocking types so that no more than two open-ended track segments are present in each direction in the interior of the territory. "Open" segments at each end are not spurs – they lead into the yards at either end. Incidently, spurs are not labeled (S1, S2, etc.) until the territory file is built. The first time you will see them labeled is when the territory is used in SUPER DISPATCHER.

Similarly, unused interlockings, those beyond a blank interlocking, are not deleted until the build cycle.

Block Mileage Errors

Any mileage figure from 01 to 99 is allowed. Blocks may NOT have zero (00) mileage.

Train Position Errors

The editor performs two train position checks:

1. Each train must be on a track segment; and
2. All trains must be positioned within the defined territory.

A train located other than on a track, or in the territory beyond the first blank interlocking must be moved to a track segment in the defined territory. If you want to position two opposing trains head-to-head on the same track – that's up to you.

Whenever you make a change to the track layout, remember to also check the other modes – especially Train Position – to determine what effect the change has had.

HARDCOPY OUTPUT

You may, depending on the type of printer you have, be able to obtain a printed copy of your file development screens. The PRINT command may be called in TRACK, MILEAGE, TRAIN, and NAME modes by pressing the PRINT key. If your printer is on and compatible with the setting selected at the start of the program a "representation" of the screen display is sent to the Printer. In Train Positon mode the train numbers (only) are shown on the layout at their current locations. When printing is complete you will be returned to the Mode screen.

PROGRAM ABORT

At any time while you are designing a territory you may escape from the program by pressing the ABORT key. This calls up an "exit" screen. From this screen you may either restart the program or exit to Basic.

COPYRIGHT

This software product is copyrighted by Thomas B. Levine, with all rights reserved and has been exclusively licensed to SIGNAL Computer Consultants, Limited, by Thomas B. Levine. The sale and distribution of this product is intended for the use of the original purchaser only. Lawful users of this software are hereby licensed only to read the program from its medium into memory of a computer for the purpose of executing the program. Duplication, copying, selling or any other form of distribution of this product is a violation of the law.

This manual is copyrighted and all rights are reserved. It may not be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine readable form, in whole or in part, without prior written consent from SIGNAL Computer Consultants, Limited.

STATEMENT OF POLICY

SIGNAL Computer Consultants, Ltd. makes every effort to check the quality of the product supplied. All disks and cassettes are verified at least once prior to shipping. Because of damage due to shipment or other cause, there is always the possibility that the product you receive is defective.

If problems are encountered with our product within the first 30 days, please return it to us for a new copy. After 30 days, the returned copy must be accompanied by a check for $5.00. (Include proof of purchase)

If you have any difficulties, you can call (412) 655-7727 or write to:

SIGNAL Computer Consultants, Ltd.
P.O. Box 18222 • Pittsburgh, PA 15236

© Copyright 1987 Vernon L. Hanson
All Rights Reserved

SIGNAL Computer Consultants, Ltd.
P.O. Box 18222 • Pittsburgh, PA 15236